

PASSAGE project

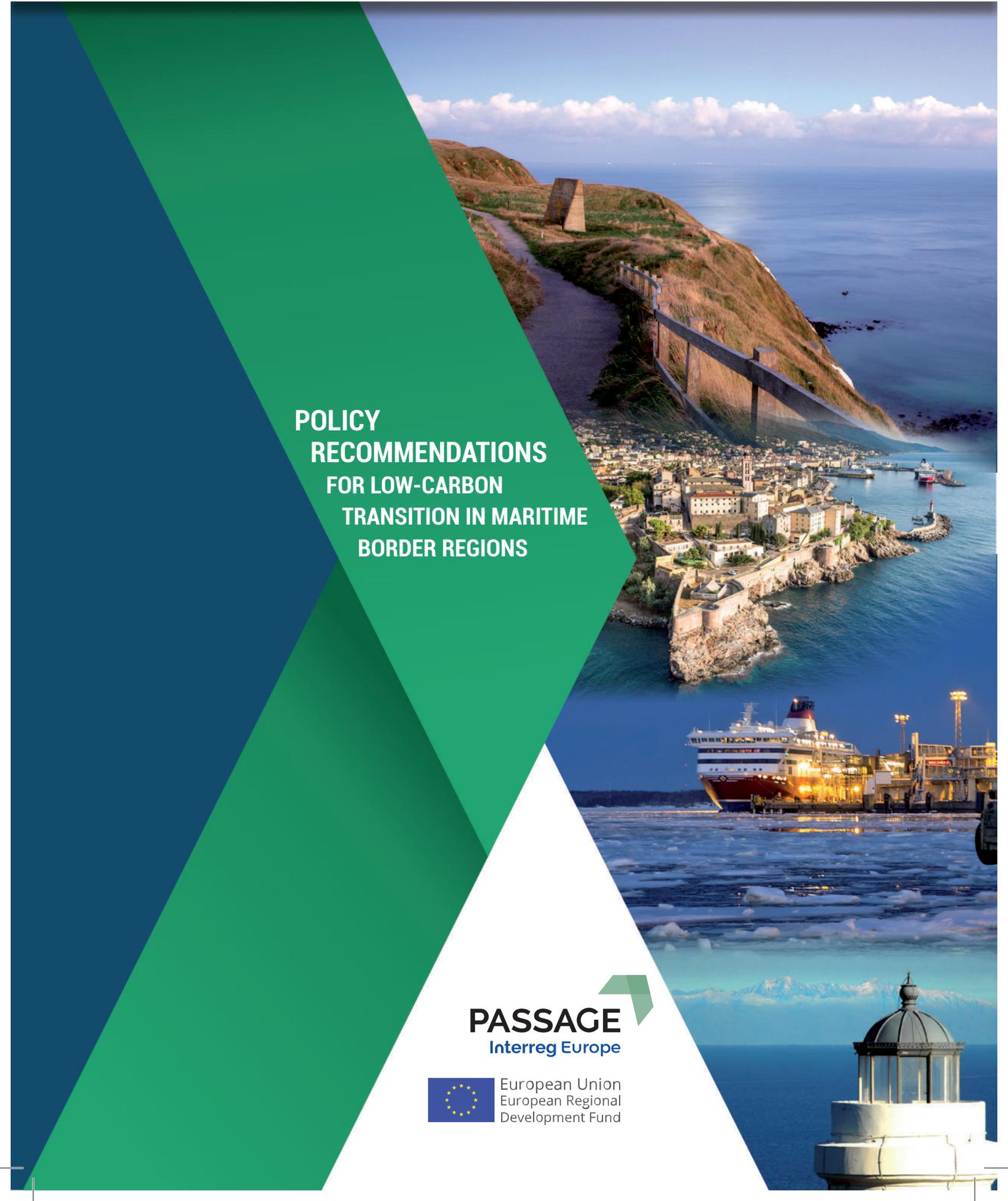
Public Authorities Supporting low-carbon Growth in European maritime border regions

**POLICY
RECOMMENDATIONS
FOR LOW-CARBON
TRANSITION IN MARITIME
BORDER REGIONS**

PASSAGE
Interreg Europe



European Union
European Regional
Development Fund



PASSAGE

Interreg Europe



European Union
European Regional
Development Fund

PASSAGE project in short

PASSAGE project is an interregional cooperation project supported by Interreg Europe programme



May 2016 - April 2020



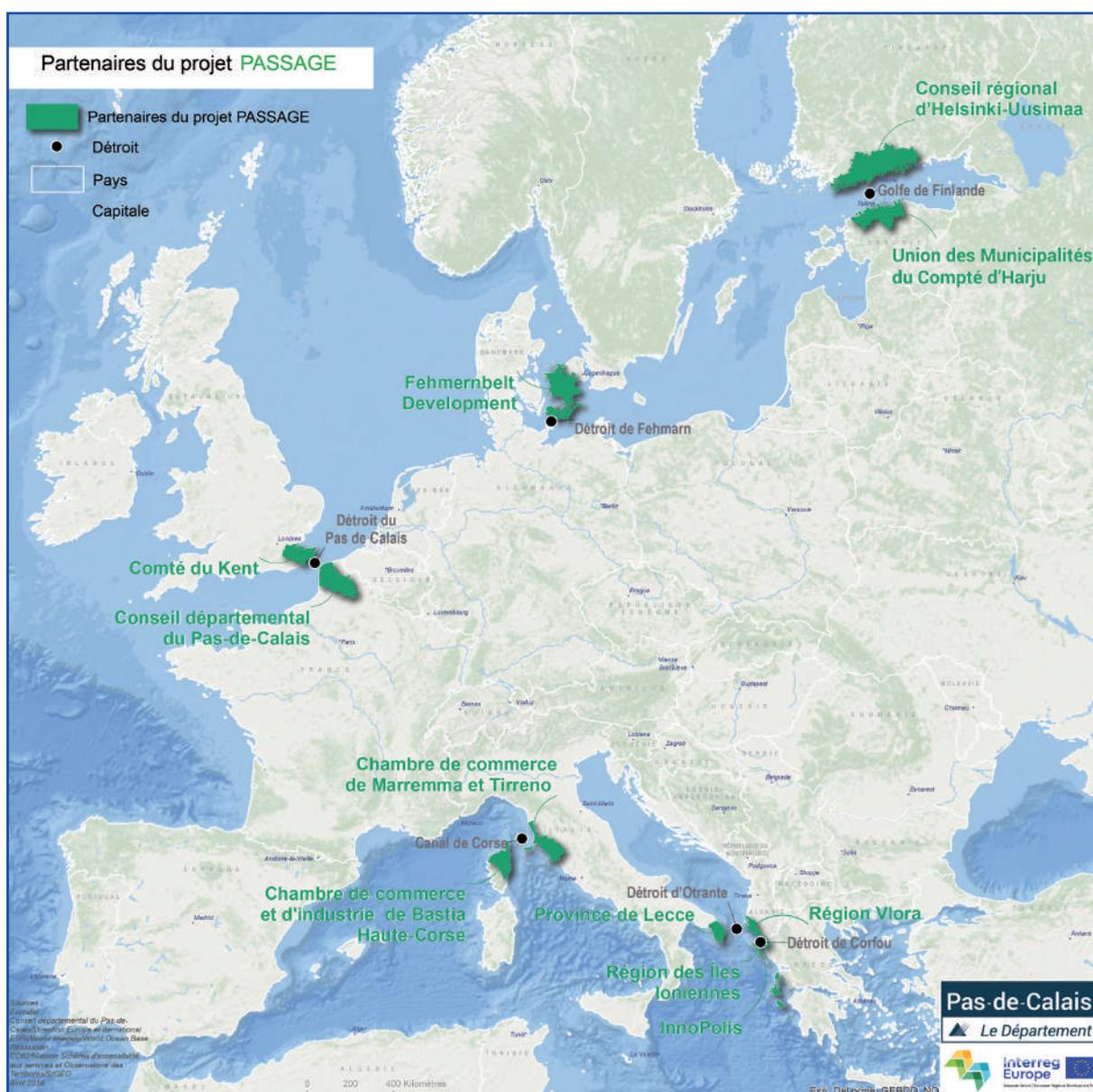
11 partners



8 countries

3 main steps:

- 1 - Improving knowledge:** realisation of a carbon study to have a clear vision of the reality of carbon emissions linked to the activities of the strait at cross-border level and for all the straits of the partnership.
- 2 - Sharing successful experiences:** partnership meetings to present good practices from each partner region, select the most successful examples and learn from each other.
- 3 - Acting at cross-border level:** preparation, validation and implementation of a cross-border action plan in each maritime border region of the partnership. These action plans aim to trigger the low-carbon transition in each maritime border region, based on the learnings from the carbon study and the exchange of experiences.



Carbon emissions generated by human activity definitely contribute to climate change. Straits are found at the heart of maritime border regions and the concentrations of large carbon footprint activities – maritime and logistic traffic flows, port operations and related industries – leave a particularly large carbon footprint. The aim of the PASSAGE project is to reduce the impact of such activities on climate change, by **promoting low-carbon initiatives and cross-border cooperation within maritime borders**. The long-term competitiveness of the straits is dependent upon taking full advantage of the opportunities linked to low-carbon development and “blue” growth.

More information:

www.interregeurope.eu/passage

Why support the low-carbon transition in maritime border regions?

➤ Maritime borders' characteristics

Low-carbon transition and mitigation of climate change can be considered issues for every territory in Europe. To reach the main international decarbonisation objectives territories must:

- limit global warming to 2°C and reach carbon neutrality in the second half of the century (COP21 Paris agreement – 2015).
- reduce greenhouse gas emissions by 20% by 2020 (Europe 2020 strategy).
- reduce internal EU emissions by 80% by 2050, compared to their levels in 1990.
- reduce energy consumption in the EU by 30% by 2050, compared to 2005 energy consumption level.
- Increase the quality of air and health due to a 65% reduction in pollution by 2030 compared to 2005 levels.

There are some common characteristics of maritime EU regions¹, such as increased risk of flooding due to rising sea levels, as a direct consequence of the global warming generated by CO2 emissions, and increased opportunities to produce renewable energy, such as offshore wind-turbines and hydroelectric power.

The characteristics of EU border regions² present other challenges when it comes to low-carbon transition and mitigation of climate change, such as the increased need for coordination of public policies and additional obstacles linked to administrative, cultural, or linguistic differences.

As a result of these characteristics, maritime border regions face a number of specific issues, identified as follows by PASSAGE partners:

- **No possibility for regional, intermediate and local authorities to directly influence the international transport flows passing in-between the two shores**, in contrast to other regions in Europe that can have a direct influence on activities occurring in their territory. Maritime transportation thus generates a carbon impact for these territories (see results of PASSAGE carbon study), without them being able to work to reduce these emissions. More globally, international maritime flows are not directly related to any country; they do not “belong” to any territory and thus remain the blind spot of international agreements on climate.
- **The sea acts as both a mental and physical barrier to the territorial continuity of maritime border regions**, which limits the capacity for a coordinated approach of these regions as an integrated territory. When it comes to low-carbon transition, the lack of coordinated approach and the lack of contact between people are the main risk to public policy failure on both sides of the border and can result in activities on the two shores being developed in isolation.
- **Apparent contradiction between the need to increase transport connections between the two shores and the need to reduce the emissions linked to transport**. The lack of territorial continuity as a result of the sea is a clear challenge for the development of an integrated territory across a maritime border. Transport connections are seen as the best opportunity to reduce this obstacle and enable people to cross the border. However, transport is also one of the main carbon emitter sector in these regions (see results of the PASSAGE carbon study); a clear challenge for these territories.

¹ “In 2008, around 205 million people lived in the EU coastal regions, i.e. 41 % of the EU population”, according to Eurostat regional yearbook 2011.

² According to the European Commission, more than one third of EU citizens live and work in border regions.



- **Direct cost to cross the border**, which remains a barrier to stronger cooperation. Unlike land borders that can be crossed freely by workers, tourists and local residents, crossing maritime borders always has a cost and mainly relies on private services (ferries companies, private management of tunnels or bridges). In certain territories, the ability to cross is dependent upon high seasonality (example: between Corsica and Italy) and generates difficulties for institutional or economic cooperation all year long.
- **Strong peripheral dimension within national policies.** The borders regions are mainly on the peripheries of the countries and this has consequences on the public policies implemented in them. Because the sea is a direct obstacle to territorial continuity with the neighbour country, the maritime borders are more directly impacted by the lack of continuity of public policies.

➤ Assessing carbon emissions in maritime border regions

In accordance with PASSAGE project framework, a study on the carbon emissions emitted in the partnership's maritime border regions (and more specifically, in strait areas), was conducted by I Care & Consult. This study aimed to evaluate the carbon impact of activities linked to the strait (and was not a comprehensive carbon footprint of maritime border territories), in order to stimulate an appropriate response. The study is the first of its kind to consider both the activities on land and on sea, with a cross-border vision of the strait territory.

The learnings of the study are to be considered at different scales and with all the limits of such a study, detailed in the final report. Most of the study relies on existing data about traffic or use of energy, which is often incomplete, and is built upon scientific literature dealing with such carbon emissions calculation. For every maritime border in the partnership, a geographical area was first defined for the strait, based on its typical activities and functions. This geographical area was then used as the perimeter to calculate carbon emissions.

The full study with detailed figures and methodology can be downloaded at
www.interregeurope.eu/passage/library



How to support the low-carbon transition in maritime border regions?

► I- Successful examples of low-carbon transition: PASSAGE best practices

During three thematic seminars, PASSAGE project partners have presented and discussed good practices from each partner territory. After attending many interesting presentations and a difficult selection process, PASSAGE project partners selected nine exemplary practices. These “best practices” are all able to demonstrate:

- superior results compared to other practices implemented in the same context,
- a good capacity to mobilise different types of partners (public, private, academics, civil society) and different sectors of activity,
- a good potential for transfer in other European regions.

These “best practices” are presented here as successful examples of how local, intermediate, and regional public authorities can implement low-carbon transition in maritime border regions through a large variety of public policies, from transport and mobility policies to environment and attractiveness policies, or policies aiming to support entrepreneurship or social innovation.





GERMANY/DENMARK - FEHMARNBELT

Fehmarnbelt ticket

In the Fehmarnbelt, local authorities on German and Danish shores are developing a single ticket enabling people to easily use public transportation on both sides of the maritime border and to use the ferry to cross the strait, for a reasonable price. Such initiatives contribute to the direct reduction of emissions in a region where most people cross the strait with their car. This will make travelling across the border easier and thus enhance the sense of belonging to an integrated region among the population of both shores.

Stakeholders involved	Scandlines (ferries), Movia, Nah.sh, Nsh.de, Kreis Ostholstein, Region Zealand, Femern Belt Development and NIT
Timeframe	2009-2012: preparation work 2012-2017: ticket is working. The ticket is on pause now, because the rail tracks in both Germany and Denmark are been upgraded, which makes it difficult to travel by train across the Fehmarn Belt. The ticket will be introduced again in 2028-2029, when the fixed link is finished.
Cost	5 000 € for marketing the ticket
Quantitative and qualitative impact(s)	1 000 tickets sold every year from 2012 to 2017
Contact	Jesper Bille, Femern Belt Development, jesper@femern.info



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Horst Wepler, Head of department, Kreis Ostholstein (Germany)

Horst Wepler, you are working for the County of Ostholstein on the implementation of the Fehmarnbelt ticket, which has been selected by PASSAGE project partners as a best practice for low-carbon transport in maritime border regions. Can you please explain in a few words what it is about?

The Fehmarnbelt ticket is a cross-border ticket between Denmark and Germany across the Fehmarn Belt. The ticket was founded in 2012 and is a corporation between 3 transport companies; 2 public transport companies and one private owned transport company.

Can you explain what the main achievements are and how it contributes to decrease carbon emissions in your maritime border region?

We have successfully built a cross-border corporation between regions, municipalities, public and private transport companies. A main goal of a carbon decreasing strategy is to make it useful and easy for passengers to use public transport systems to cross the Fehmarnbelt, instead of traveling with their own cars. Before implementing the Fehmarnbelt-Ticket it was very difficult to cross as the passengers had to have 3 different tickets.

To make it happen, you have to work closely with your Danish counterparts across the border. What are the main difficulties you have faced/are facing?

Most of the difficulties were to find the right and responsible partners. Especially in the field of public transport, many different organizations are responsible in the two countries. There are also major technical problems, because the tickets, the reading bots and the QR codes are very different. Another problem is the timetables, which often do not take into account cross-border traffic.

Why do you think this is, at the end, a success? What can still be improved?

If the offer is attractive to residents and tourists, it will be a success. We are working on it in the near future, but there is still a long way to go. We have to be careful to solve the technical problems and the coordination of the timetables.

The Ticket is now on hold because the railway on each side of the Fehmarn Belt is being upgraded to handle new and faster trains. The ticket will be introduced again in 2028-2029 when the fixed link between Denmark and Germany is finished.

Do you think a similar cross-border ticket could be implemented in other maritime border regions? What would you advise to the interested local authorities?

Yes, a transfer of this cross-border ticket might be possible. An accurate analysis of the circumstances must be made. It is important that the offer to residents or tourists is attractive and that booking and marketing is easy.

Jesper Bille, Project manager , Femern Belt Development (Danemark)



Jesper Bille, you are working for Femern Belt Development, on the Danish shore of the Fehmarnbelt maritime border region. Can you please explain what the purpose of your organisation is?

Femern Belt Development aims to ensure that the companies and citizens in region Zealand will get the most out of the Fehmarn Belt fixed link before, during and after the construction phase.

We are an institution that collects, processes and disseminates knowledge that can promote economic development and employment and ensure that we exploit the potential opportunities that result from these major construction projects.

We also work to create a region where labour, business and culture can be exchanged. We work to create a sense of community in the Fehmarn Belt region.

Why is it important for you that the Fehmarnbelt ticket exists?

The Fehmarnbelt ticket is important because the main purpose for us is to develop a common Danish and German region called the Fehmarn Belt Region, which can benefit from the fixed link when it opens.

To be ready to exploit the opportunities from the fixed link, we need to start building the sense of community in the Fehmarn Belt Region now.

It is very important that German and Danish people can meet in an easy and cheap way, that of course is also low carbon friendly. With the Fehmarnbelt ticket you can travel in Denmark and Germany with one ticket and use public transport on both side with no worries.

ITALY – CORSICA CHANNEL

LNG port facilities

The use of alternative energies such as LNG (Liquefied Natural Gas) for navigation and port operations is at the heart of the strategy implemented in the port of Livorno (Corsica Channel) to develop a hub for LNG distribution in the Mediterranean.

Stakeholders involved	<p>The partner network involves three spheres of stakeholders:</p> <ul style="list-style-type: none"> • Institutions at national level (Ministry of Transport and Ministry of Economic Development) • Research centers (CNIT, LOGIT, University of Pisa, Sant'Anna School of Advanced Studies, etc.) • Industries (Softec, Eni, Higas, OLT, etc.)
Timeframe	<p>2009-ongoing</p> <p>The LNG timeline in the Port of Livorno is composed of three phases:</p> <ol style="list-style-type: none"> 1. "Awareness rising" from 2009 to 2013 2. "Prototypes development" from 2013 to 2014 3. "Industrial initiatives" ongoing
Cost	<p>Around 1 400 000€ for the three-year period 2017-2019</p>
Quantitative and qualitative impact(s)	<p>The activities related to LNG in the port of Livorno are mainly focused on the implementation of pilot actions for the supply of maritime and port facilities. Expected impacts are:</p> <ul style="list-style-type: none"> - An increased response of the port community to this new "green" fuel - Demonstration by the North Tyrrhenian Sea Port Authority of the immediate applicability of the supply and the functioning of the technologies and the LNG supply chain.
Contact	<p>Francescalberto De Bari, Livorno Port Authority, f.debari@porto.livorno.it</p>
Website	<p>https://www.portialtotirreno.it/</p>





Francescalberto De Bari, Head of economic planning, strategic & EU projects and innovation, Livorno Port Authority (Italy)

Livorno Port Authority's use of alternative fuels in port infrastructure was selected as a PASSAGE best practice for low-carbon transport in maritime border regions. Can you tell us more?

Livorno Port Authority is very pleased with PASSAGE partners' attention for our approach to alternative fuels, in particular LNG. Our idea is very simple: we believe the maritime area between Northern Tyrrhenian and Ligurian sea has the right features to become the first Mediterranean complete LNG distribution network. I guess the interest of PASSAGE partners is due to the geographic dimension of our low-carbon approach; our experience is related to a typical cross-border European region like INTERREG VA France-Italy (Maritime) cooperation area.

Can you explain the main achievements, how it contributes to decrease CO2 emissions?

LNG can give major contribution to reduce carbon emission from maritime transport. On one hand, ships are always much more environment-friendly than other transport modes. On the other hand, there is still a problem with CO2 emissions (and other pollutants such as sulphur), in particular when ships are inside a port. Almost all ports in the Mediterranean Sea are completely surrounded by cities, with residential areas just on the waterfront. Sometimes answer is delocalisation, de-concentration of certain port activities outside the ancient "port city", and waterfront revitalisation. But very often there is no room for such interventions or it's not economically sustainable. LNG can answer this problem, especially in the short-term.

Use of alternative fuels must be a challenge for a port like Livorno (30 million tons of cargo each year). What are the main issues?

Main interventions are related to LNG storage facilities. A European core seaport like Livorno needs to offer all the relevant facilities in the context of maritime transport: LNG fuelling will soon be a standard asset of every international seaport.

The Coordinator of the European Scandinavian Mediterranean Corridor already lists Livorno among the EU core ports that will have LNG storage and refuelling facilities: this is very important to attract EU grants and public-private investments. Livorno Port Authority is also an implementing body of the Italian Ministry of Transport in the GAINN Global Project, co-funded by Connecting Europe facility.

LNG is an alternative fuel not only for maritime freight transportation, but also for passengers, ferry and cruise ships. In a cross-border perspective, passengers are a major element.

Why do you think this is, at the end, a success? What can still be improved?

There is a lot to do about regulation of LNG related activities. Use of LNG as alternative fuel is an opportunity not only for maritime transport (off-shore) but also for in-port activities, e.g. terminal operations. A seaport like Livorno has the chance to be a hub for LNG as alternative fuel for road transport, industrial use and public utilities where gas distribution networks do not exist, e.g. in Sardinia. "Iso-Tank container" is now an efficient and safe way to transport this fuel from the port to the hinterland, also by intermodal transport. Livorno could become the pivot or "gateway" of LNG for central and northern Italy and central Europe; but to reach that goal we need to set up a LNG intermodal distribution facility.

We also have to improve a lot the overall awareness about LNG, both at societal level, with public consultations, and at port community level, with specific actions for training. To do so, Livorno is building a complete, distributed, facility network for training in LNG sector, as required also in the Italian draft law (decree-scheme) implementing Directive 2014/94/EU.

Could a similar approach to alternative fuels be implemented in other ports?

A port is a complex infrastructure, result of number of activities; every port has its own features. It's very important to plan LNG within a wider framework; there is no need to have every kind of LNG facilities in every port.

France-Italy (Maritime) cooperation area is an example of complementarity of geographically distributed elements:

- 1) An off-shore terminal, built for regasification (national gas network), that also has capability to transfer LNG into mini LNG carriers*
- 2) A "small-scale" storage facility in Livorno (core network), with opportunity to activate intermodal services for LNG iso-containers*
- 3) Therefore, no need to have LNG storage facilities in other "comprehensive" ports of the area, such as in Corsica*
- 4) Storage facilities in Sardinia, as a tool to give an answer to the lack of a gas distribution network in the island...*

And many other elements with a number of positive interactions.

Cooperation in planning, in defining service standards, in programming investments: this is the major challenge for ports, especially in cross-border regions. LNG could be a test-bed for this kind of new approach in port cooperation.

FINLAND/ESTONIA – GULF OF FINLAND 30MILES project

In the Gulf of Finland, 30MILES project aims to develop a network of secured harbours every 30 miles. Such initiative encourages the development of sailing, a zero-emission tourism! A new way of discovering the cross-border territory and enhancing its attractiveness.

Stakeholders involved	<p>30MILES is co-ordinated by the Kotka Maritime Research Association Merikotka. Other Finnish partners are South-Eastern Finland University of Applied Science, University of Helsinki, Cursor Ltd and Posintra Ltd.</p> <p>The partners in Estonia are Ida-Viru Enterprise Centre, Reconstruction and Operation of Eisma Port, Viimsi municipality, Estonian Maritime Museum, Narva Department for City Development and Economy and Narva-Jõesuu municipality.</p> <p>Associate partners are Lääne-Viru County Government from Estonia and Finnish Sailing and Boating Federation from Finland.</p> <p>Stakeholders also include boaters, sailors, hobbyist and marinas.</p>
Timeframe	September 2015-August 2018
Cost	3 300 000 €
Quantitative and qualitative impact(s)	Expected impacts at the end of the project are the improvement of the service level and safety of 12 ports in the Eastern Gulf of Finland.
Contact	Topi Haapanen, Director of Regional development at Posintra Ltd, topi.haapanen@posintra.fi
Website	http://www.merikotka.fi/projects/current-projects/30miles/





Topi Haapanen, Director of Regional Development at Posintra Ltd (Finland)

Topi Haapanen, you are working for Posintra Ltd on a cross-border cooperation project called 30MILES, supported by INTERREG V A Central Baltic. Can you briefly explain what this project is about?

The basic idea of the 30MILES project is to develop small boat marinas within every 30 miles on the Eastern Gulf of Finland. The aim is to establish a ring of developed ports. We believe that the joint development of sustainable port services boosts up the business opportunities and that carefully studied cost-effective development protects the environment. Joint marketing actions also increases the awareness of new services.

Sailing is a zero-emission transportation mode but also a nice way for tourists to discover new areas and contribute to local development. In your opinion, why is it interesting to bet on the development of sailing? How can it contribute to increase the attractiveness of the Finnish coast and, more globally, of the Gulf of Finland?

Networks of small ports form a chain of service and safety bases for sailors. Marinas themselves can be seen as vibrant service points for different target groups. Development of a small port or marina is a self-feeding system: pure and rich natural environment affords memorable experiences. Boaters highly value nature and the ecosystem services that they use, and want to be able to use them in the future. On the other hand, port-users appreciate good services and activities. Lively port and coastal tourism activities are inevitably a burden on nature, but the magnitude of stress caused can be reduced by planning. The investments that foster the good condition of environment, also have the potential to attract more clients.

One of the very interesting approaches of 30MILES project is the involvement of hobbyist sailors in the development of new port infrastructures. Can you explain how you involve them and what are the long-term benefits of their involvement for the development of sailing?

One concrete measure of the 30MILES project was to create a business concept for four marinas. The boaters participating in the development work represented, with their backgrounds, a wide range of competence. The work brought together new people and new competence on the basis of a shared hobby of the participants. This surprising competence and new networks were combined in alignment with the goals of the project. The practice strengthened multidirectional communication on the measures of the project. My message is: don't underestimate the roles, competence, and networks of hobbyists in development works. Don't over-plan but leave room for surprises. What is most important - don't let the hobbyists down, they are "developing their free time".

What is the benefit of working at cross-border level on such topic?

Cross-border cooperation is essential in 30MILES project. If you want to establish a network of ports you cannot do that alone. 30MILES partners on both sides of the Gulf of Finland are the most essential players. In cross-border cooperation all knowledge and experience is shared. Cross-border cooperation also opens the doors to new markets.

Do you think a similar approach to marinas' development as a factor for low-carbon attractiveness can be implemented in other maritime border regions? What would your advice be to other local authorities?

I like to encourage all the planning experts to take a moment to look around to check if they can find new people, new ideas and new surprising stakeholders who can benefit the addressed goal. I'd like also to remind them that the initial investment for environmentally friendly solutions may be higher, but savings will be gained in the long run. Concentration of various services into the marinas – which are located inside the cities – reduces transportation emissions and the marinas can be seen as service stations and traffic nodes. On the other hand, when you build in a demanding environment – like on the island – the construction requires wise use of resources. For example, in Kelnas, the thermal energy utilized from the sea reduces the need for other energy. These are just some examples which may give new ideas when developing the low-carbon and sustainable future.

ALBANIA – STRAIT OF OTRANTO

Carbon storage through MPA management

On the Albanian shore of the Strait of Otranto, the creation and good management of Karaburun-Sazan Marine Protected Area enabled to safeguard Posidonia Meadows habitats: an economic value of more than 11.6 million euros thanks to their capacity for carbon storage.

Stakeholders involved	Ministry of Environment, "Improvement of coverage and management of MCPA in Albania" project implemented by UNDP Albania and financed by GEF and Albanian Government, Regional Administration of protected Areas (from 2015), Directory of Forestry Services, Orikum Municipality, NGO-s, Fishery Association
Timeframe	2011 - 2016
Cost	2 927 500 US \$ (approx. 2.4 million €)
Quantitative and qualitative impact(s)	<p>Some quantitative impacts:</p> <ul style="list-style-type: none"> - A number of Memorandums of Understanding have been implemented involving stakeholders in the process of surveillance, monitoring and law enforcements in protected areas - Six rangers work together for controlling illegal fishing and hunting, grazing, fires <p>Some qualitative impacts:</p> <ul style="list-style-type: none"> - Enforcement of control mechanisms in the target area of Sazan-Karaburuni, ensuring mitigation and prevention of all kind of damages and environmental pressures - Socio-economic assessment of Sazan-Karaburuni marine and coastal protected area is guiding the development of ecotourism - The Strategic Plan on Marine and Coastal Protected Areas assists a coordinated decision-making for an ecosystem-based spatial management, ensuring sustainable development while conserving and managing natural biodiversity and resources. It is incorporated in the Strategic Document of the Biodiversity Protection and Action Plan recently approved by the Government of Albania. - A comprehensive public awareness and communication campaign has been implemented throughout the project implementation targeting national counterparts, students, civil society and the media. The campaign helped raise awareness about the need to conserve the marine coastal protected areas.
Contact	Tatjana Mehillaj, Regional Administration of Protected Areas for Vlora Region (RAPA Vlore), tatjanamehillaj@yahoo.com
Website	www.akzm.gov.al http://mcpa.iwlearn.org/





Tatjana Mehillaj, Head of Management Service, Administration of Protected Areas for Vlora Region (Albania)

Tatjana Mehillaj, you are working for the Administration of Protected Areas of Vlora Region (RAPA Vlore) on the Strait of Otranto. Can you tell us more about this administration?

RAPA Vlore is one of the twelve administrations of the National Agency of Protected Areas (NAPA), created by the Council of Ministers Decision No. 102, date 04/02/2015, for management, protection, development and expansion of natural protected areas in our country.

The main aim of NAPA/RAPA-s work is the conservation of biodiversity through sustainable management of protected areas, according to international standards and requirements based on the experience of European countries. Since its creation, our administration is working to represent a new approach on sustainable management of protected areas and a better collaboration between stakeholders.

Your approach of carbon storage through good management of a Marine Protected Area (MPA) has been selected by PASSAGE project partners as a best practice for low-carbon attractiveness strategies. Can you explain how the implementation of a MPA like Karaburun-Sazan can contribute to carbon storage and, therefore, contribute to a global approach for low-carbon transition?

What makes the difference for Karaburun-Sazan MPA is the ecosystem approach on management plan development. Identifying the main marine habitats, we were able to define the ecosystem services provided by each of those habitats. For instance, being completely aware on the importance of Posidonia meadows habitats, mainly related to carbon sequestration, we translate these habitats into economic value (1,606 billion ALL/11,642 million €). The reason is simple: we have to speak the same language with everyone. In this case, it's easier for us to inform decision makers on the great role of this habitat into carbon sequestration. The creation of MPA-s help us to ensure a sustainable management of marine habitats, reduce and limit their destruction. Better are the quality and the state of the marine ecosystems, better is the quality of the services they provide.

Protection of maritime areas such as Karaburun-Sazan must be a challenge in a cross-border and highly frequented area. What are the main difficulties you are facing?

We mostly face issues with coordination and conflicts between national priorities. We still don't have marine spatial planning at national or regional level. This means that the development around our Marine Park and the activities located in this area don't always match with the protected area strategy, and might impact the ecosystems around and within the park (eg. the port of Vlora, aquaculture farms, fisheries etc.). Other difficulties we are facing are law enforcement and coordination or collaboration between different national institutions.

Why do you think this is a success? What can still be improved to enhance potential for carbon storage?

The success I think consist on three facts. Firstly, this management plan has been done with a participatory approach from the beginning. In the management plan, all the requirements from all the stakeholders are reflected. Secondly, this management plan is 100% implemented by a public institution, serving as a guide on the activities, projects and planed studies. Finally, as I mentioned before, it is the first time that an economic valuation of ecosystem services has been done in protected areas in Albania. Still, there is a lot more to do, to ensure a good management of ecosystem and to fulfil the commitments to sustainable management of the MPA and to ensure the preservation of the habitats. We are trying to promote sustainable touristic activities as much as we can. For instance, we developed an underwater trail with information on the importance of Posidonia meadows habitats all along it. Also, we developed four hiking trails along the coast with an information table on the main values of MPA. Still, to improve the potential for carbon storage, Karaburun-Sazan MPA should be further extended to include other focal areas for the Posidonia meadows habitats in Vlora bay.

Do you think a similar approach to management of Marine Protected Areas for carbon storage can be implemented in other maritime border regions? What would you advise the authorities?

I think everything depends on the priority that every country has. In the case of Karaburun-Sazan, we were lucky on collaborating with a very powerful international organization: UNDP. They trained us and brought to the area a very qualified scientific staff who applied a different approach on PA management. My recommendations to the authorities in order to improve the potential for carbon storage would be:

1. Raising awareness among authorities for the relevance of the preservation of costal marine ecosystems
2. Increasing the support for MPA managers
3. Supporting the creation of new MPAs.

UNITED-KINGDOM/FRANCE – DOVER STRAIT

Ecomobility and tourism

On both shores of Dover Strait, work has been undertaken to support ecomobility practices, especially in the field of tourism. In Kent, a “Countryside and Coastal Access Improvement Plan” is being developed to enhance low-carbon public access to tourism attractions and more broadly, improve the opportunities for residents to adopt more sustainable modes of travel in their everyday life.

Stakeholders involved	<p>In England: Kent County Council, local user groups (eg. Ramblers' Association, British Horse Society, Sustrans), tourism partners including Visit Kent, landowners, district and parish councils, volunteers and local communities</p> <p>In France: Pas-de-Calais Tourisme, Pas-de-Calais County Council</p>
Timeframe	Ongoing
Cost	N/A
Quantitative and qualitative impact(s)	Reduced number of short car journeys, reduced congestion and improved access to the countryside. In turn, this helps encourage residents to adopt healthier lifestyles, bringing health and wellbeing benefits.
Contact	<p>Thomas Kennedy, Countryside Access Improvement Plan Officer in Kent County Council, thomas.kennedy@kent.gov.uk</p> <p>Diana Hounslow, Director of Pas-de-Calais Tourisme, dhounslow@pas-de-calais.com</p>
Website	<p>Public facing website for residents and visitors: http://explorekent.org/</p> <p>Kent countryside access improvement plan: http://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/countryside-policies-and-reports/countryside-and-coastal-access-improvement-plan</p> <p>Holiday packages on French side: http://terredes2capstourisme.fr/fr/fr/category/les-bons-plans-de-sophie/</p>





Thomas Kennedy, Countryside Access Improvement Plan Officer in Kent County Council (United-Kingdom)

Tom Kennedy, you are working for the Kent County Council on the "Countryside and Coastal Access Improvement Plan". Your approach of ecomobility as a factor of attractiveness for Kent territory has been selected as a best practice by PASSAGE project partners. Can you explain your missions in a few words?

Our work aims to enhance public access to the countryside and coast by developing Kent's Public Rights of Way network. This is a unique network of legally protected paths that provide walking, cycling and horse riding opportunities for residents and visitors across Kent.

How can it contribute to increase the attractiveness of Kent territory and what specific opportunities are offered by the development of ecomobility products?

The Public Rights of Way network provides opportunities for low carbon travel across Kent. We have developed walking and cycling routes that connect residential neighbourhoods with schools, community facilities and places of employment. These access links enable the public to actively travel as part of their daily lives. This helps to reduce the number of short distance car journeys, address increasing traffic congestion concerns and enhance the environment

In addition to active travel, the public rights of way network provides opportunities for outdoor recreation and leisure activities, which support and encourage low carbon growth in the rural economy. This is demonstrated by the development of the England Coast Path, a new national trail that will eventually circumnavigate the entire English coastline. The trail passes through areas of outstanding natural beauty, connecting coastal communities with tourism attractions for visitors to explore by foot and bicycle.

The development and management of paths dedicated to pedestrians, bikers or riders must be quite a challenge for an authority like Kent County Council. Who are your main partners on the ground? What are the main difficulties you are facing? What can still be improved to enhance the potential for attractiveness?

We work with a diverse range of stakeholders to successfully manage and promote the public rights of way network. We consult local user groups to identify potential network improvements, negotiate new access developments with landowners and collaborate with tourism partners (including Visit Kent) to promote the region as a tourism destination. Their marketing work is valuable to enhance public awareness of walking, cycling and horse riding opportunities available in Kent.

Managing the public rights of way network is a challenge as we have to carefully balance public access with private landowner interests. One of the main difficulties is that the volume of requests received by our service exceeds the level of resource available within our team, so we have to carefully prioritise our work and manage public expectations.

Looking forward, we can improve the public rights of way network further by enhancing the quality of existing network infrastructure, ensuring paths are attractive and accessible to use. We would also like to deliver public aspirations for new routes that provide outdoor recreation opportunities and connect existing paths together, as this would help to establish a modern integrated network of sustainable transport opportunities for the public to enjoy.

Do you think a similar approach to ecomobility can be implemented in other maritime border regions? What would you advise the local authorities?

The legally recorded public rights of way network is unique to England, but off-road walking and cycling routes can be found across Europe. These low carbon modes of transport bring social, economic and environmental benefits to Kent, which can be replicated in other regions.

Our plan for improving the path network is customer focused, based on extensive public consultation that has identified user demands and aspirations for access improvements. This approach of listening to the public and producing countryside access improvement plans based on their feedback could be successfully applied to other maritime border regions.

I would advise local authorities to listen carefully to their customers and stakeholders so that public aspirations and user requirements are clearly understood. It is also important to invest time and energy with local stakeholders to establish productive working partnerships. This is because you will need their help to deliver new schemes and manage trails in the long-term future if you want to maximise the potential benefits of ecomobility.



Diana Hounslow, Director of Pas-de-Calais Tourisme (France)

Diana Hounslow, you are working for Pas-de-Calais Tourisme on the development of ecomobility for tourism. Can you briefly tell us what experiments you have implemented and how it benefits to the attractiveness of the French coast of Dover Strait?

We carried out two experiments inviting a keen walker and a practiced cyclist to test itineraries on the Opal Coast.

Pierre's took a 3-day car-free escapade arriving from Paris by high speed TGV in Boulogne-sur-Mer. He walked from Boulogne to the gateway of Le Grand Site de France Les Deux Caps La Pointe de la Crèche to Cap Blanc-Nez, he returned to Paris from the international station at Calais-Fréthun. He stopped off in restaurants and accommodation along the way and sent us a detailed account of his journey. This enabled us both to analyse our shortcomings and understand the needs of walkers.

We organised training for local businesses based on Pierre's experience. What is the ideal content for a car-free holiday? Analysis of what's on offer, partnerships and networks including transportation businesses, raising the awareness of local businesses, targeting through social networks... As a result, we marketed 5 holiday packages, available online through the Terre des Deux Caps Tourist Office since September 2015.

Our cycling expert was also a tour operator, he took the Eurovélo route along the coast and recorded his experience in the same way as Pierre had done. He then helped us produce a package for cyclists and a second series of suggested routes for cyclists and walkers, he promoted them on his website www.france-randonnee.fr.

A spin off from this experiment was to equip La Maison du Grand Site visitor with 30 electric bicycles which during their first season they were rented 1 700 times from the 1st of April to the 30th of September... despite a pretty damp summer season.

We have seen that similar approaches have been developed on the English side of Dover Strait. What would be, in your opinion, the benefit of enhancing cross-border work on this topic?

We need to experiment and compare our best practices in this field. The needs of walkers and cyclists vary according to their culture, so it is always useful to see what others do to answer these needs. It is equally important that signposted routes in neighbouring regions should be connected. Identical signposting would also be an enormous step forward. Creating links between walking and cycling associations would make excellent sense economically and culturally.





ITALY – CORSICA CHANNEL

Voucher for innovation

In Tuscany, the Chamber of commerce of Maremma and Tirreno (CCIAA) has developed a specific tool to encourage innovation, in partnership with the University of Pisa. It directly contribute to innovative approaches to low-carbon transition, with direct capitalisation at business level. A good example of transversal approach of low-carbon economy!

Stakeholders involved	<p>The Chamber of Commerce has set up a strategic program on "research, innovation and development". The network created to develop and implement this program (and its tools, such as the "voucher for innovation") is composed of the following stakeholders:</p> <ul style="list-style-type: none"> a. Universities' departments and research centers; b. Companies; c. Credit institutions; d. Local and regional authorities (municipalities and region)
Timeframe	<p>The Chamber of Commerce and the University of Pisa engaged in this action since 2015. The pilot action has been completed on 2017. The efficacy of this practice both for the economic framework and the academic one has fostered the Chamber of Commerce and the University of Pisa to publish a new call for proposal (2016) to fund enterprises interested in developing innovative projects in cooperation with the researchers. This second edition is still ongoing.</p>
Cost	106 000 €
Quantitative and qualitative impact(s)	<p>At the basis of the "voucher for innovation" action is the low-carbon transition trend; the match between enterprises' needs and universities' skills to join business and social innovation has been guided by the awareness and will to impact positively on environment.</p> <p>As a result, all the researchers and companies (10 until now) engaged in the project, despite their core business activities to innovate, have developed and/or enhanced environmental sustainable products and/or processes.</p>
Contact	<p>Marina Paino, CCIAA Maremma and Tirreno, marina.paino@lg.camcom.it Iacopo Cavallini, University of Pisa, iacopo.cavallini@unipi.it</p>





Marina Paino, Officer of Promotion and Economic Development Department, CCICA of Maremma and Tirreno (Italy)

Lacopo Cavallini, Academic Researcher of Economic and Management Department at University of Pisa (Italy)



Vouchers for innovation in businesses of the CCIAA were selected by PASSAGE partners as a best practice for entrepreneurship and social innovation. Can you tell us more?

MP: To sustain development and competitiveness of enterprises, the Chamber of Commerce has set up a strategic program on «research, innovation and development» for entrepreneurs and aspiring people, to implement innovative ideas to be translated into entrepreneurship development. Among others, CCIAA launched 2 competition notices:

1. *Voucher for innovation to support SMEs to develop innovative ideas in cooperation with university researchers (6 companies selected in 2015)*
2. *Voucher for social innovation to encourage innovative solutions enhancing society wellbeing and economic competitiveness.*

CI: I represent the University of Pisa in the Commission to choose the projects that can get the voucher. Secondly, I match enterprises and researchers, identifying colleagues who have the most consistent skills for projects. Finally, I ensure that the results of collaboration fit with the expectations. At each stage, close collaboration with the CCIAA is necessary to fulfill enterprises' needs.

How does it help low-carbon innovation? What guarantees projects' sustainability after funding has ended?

MP: All sectors could contribute to low-carbon transition according to their technological and economic potential, so the Voucher for innovation is open to all economic fields, impacting directly or not on low-carbon economy. Entrepreneurs' and researchers' partnership guarantees sustainability of projects: both university departments and enterprises invest human and financial resources to deepen the work after funding has ended. Based on previous positive results, we have developed a cross-border approach for economic sectors impacting carbon emissions more directly (sustainable tourism, blue & green biotechnologies, renewable energies) with MARITTIMOTECH project, launched in January 2017. The Voucher for innovation also contributes to a change attitudes amongst entrepreneurs and citizens. Their engagement on innovative projects and processes in cooperation with researchers encourages more sustainable choices.

CI: The University devotes more and more energies, skills and resources to study low-carbon, sustainable production solutions. Researchers observe surrounding economic reality before starting projects and studies; we are all aware of having to play our part to leave a healthier and cleaner world to future generations. Matching enterprises' needs and universities' skills should be guided by this trend.

What are the main difficulties and solutions for cooperation between universities and enterprises?

MP: Implementing our action, we first confirmed the distance between universities' and enterprises' worlds. Despite the potential for universities' research to contribute to intelligent, inclusive and sustainable growth, they often don't because they don't satisfy the socio-economic needs expressed by companies and citizens. By overcoming these differences in beliefs, we are able to get these two groups to understand each other and to communicate effectively. Meetings between companies and researchers allowed them to lay the groundwork for a positive partnership. The most important step was the direct involvement of researchers in the companies. A permanent body with representatives of stakeholders' interested in innovation and entrepreneurship could strengthen cooperation.

CI: Literature coined the term triple helix to shape relations between research centres, companies and public institutions. A fourth helix (civil society) was added to comprehend 21st century innovation. Quadruple helix allows territories to follow non-traditional innovation paths. Within academic environment, there is more and more insistence on a third mission, complementary to education and research, to align agendas of the subjects that animate the quadruple helix.

Could it be developed easily in other regions?

MP: The vouchers can be developed easily in other regions if all relevant stakeholders are involved: companies, universities, research centres, public institutions and citizens. Dialogue and information are key. Do your best to sensitize the actors about the importance of cooperation and to involve them on the planning and the realisation of the innovation process. Organisations representing the companies' interests, such as Chambers of Commerce, have to strengthen their role as facilitators between socio-economic and academic systems.

CI: I absolutely agree. The quadruple helix model can be applied to explain the technology transfer in each country, so the vouchers can be developed everywhere. Each Member State has developed different models of technology transfer and collaboration between companies and research centres; but they never deviate from the triple and quadruple helix vision. We simply need to adapt the voucher practices to specific features of each nation.

FRANCE – DOVER STRAIT

Third Industrial Revolution

In Hauts-de-France region, an important masterplan has been developed with the economist Jeremy Rifkin, thinker of the Third Industrial Revolution. As for the two previous ones (the first one with coal and steam engine, the second one with oil and electricity), the Third Industrial Revolution, based on energy transition and digital technologies, changes the world, our way of living, produce, consume, move...

Stakeholders involved	<p>Initiated by: the Regional Council Hauts-de-France and the Chamber of commerce and industry Hauts-de-France</p> <p>With contribution from: the World Forum Lille and the Alliance network (sustainable growth entrepreneurs)</p> <p>Financial support: Pas-de-Calais County Council, Nord County Council, ADEME (national Agency for Environment and Management of Energy), Arras Urban District, Dunkerque Grand Littoral Urban District, European Metropolis of Lille and the European Union (through the European Regional Development fund - ERDF).</p> <p>The orientation forum is composed with about 50 members, designated by the economic, political, societal, research/universities worlds.</p>
Timeframe	<p>The Third Industrial Revolution in Hauts-de-France was launched in 2013 and started spreading on the regional territory in 2014. It is an on-going process.</p>
Coût	<p>Funding sources :</p> <ul style="list-style-type: none"> • Investment fund CAP3RI with public and private fundings from France and Europe (ERDF, Caisse des Dépôts, European Investment Bank, Crédit Agricole North of France): 50 million euros to start. • Dedicated Third Industrial Revolution savings accounts gathered more than 10 million euros from simple citizens in a few months • Crowdfunding on 5 specialised platforms
Quantitative and qualitative impact(s)	<p>More than 700 projects and initiatives</p>
Contact	<p>Magali Tribondeau, Entreprise councillor within Hauts-de-France coastal Chamber of commerce and industry, m.tribondeau@hautsdefrance.cci.fr</p>
Website	<p>www.rev3.fr</p>



LA 3^{ÈME} RÉVOLUTION INDUSTRIELLE EN HAUTS-DE-FRANCE



Magali Tribondeau, Entreprise councillor within Hauts-de-France coastal Chamber of commerce and industry (France)

Magali Tribondeau, you work for the Chamber of Commerce and Industry on the French coast of Dover Strait. The approach of the CCI in the framework of the Third Industrial Revolution in Hauts-de-France has been selected as an exemplary practice for support to low-carbon innovation and entrepreneurship by PASSAGE partners. Can you explain what this is about?

Since 2013 and the implementation of a regional Master plan, we provide support to every project which fits in one of the pillars of the Third industrial revolution. It is a new economy, a new dynamism, so we support all the new emerging initiatives.

In this framework, you have developed several funding mechanisms. Can you explain how you proceed exactly to fund innovative projects of the territory and support enterprises?

When a new project arrives, we define together with the project's owner, the steps for development and improvement and the possible funding modes. We can use subsidies, participative funding or subsidised bank loans. We can also use the CAP3RI fund, set up at the end of 2015 by several partners (Hauts-de-France Regional Council, Crédit Agricole Nord-de-France, European Investment Bank, Groupama Nord-Est), and dedicated to the Third Industrial Revolution. Each project is different, but various solutions exist to strengthen these actions.

The Third Industrial Revolution is an important change of approach. What are the main difficulties you face? Are all enterprises ready to commit to this approach?

Not all enterprises are ready to get involved in this revolution. Every entity needs to do its own revolution; to firstly take time to think about what can be implemented and then move on to reflecting more broadly on its development strategy. This obviously takes time and cannot be reached in one day. It is mainly this thinking time that takes the longest.

There is also an issue regarding innovation: revolution means breaking with today's model. But this implies technological breaks, which sometimes face regulation constraints that can limit experimentations and stop new technologies from being implemented.

Why is this a success? What is the margin for progress?

The main success is to have succeed in gathering political representatives, economic leaders, academics and all the people who feel involved in this approach. This is a substantive approach and everyone needs be counted. This approach is voluntary and collaborative and it is using this spirit that we will manage to imagine a better world for tomorrow.

Hauts-de-France region, with its mining and industrial past, is a very specific territory. Do you think a similar approach can be implemented in other territories with different features? What would you advice?

The model developed by J. Rifkin is adaptable. It should not be seen as an end itself but as a tool to be appropriated on a specific territory. Other regions and cities have understood that. The point is that everyone can benefit from the experience of the other and vice-versa. We are in an on-going improvement process and we can learn from every experience, even if this is developed on another territory.

FINLAND – GULF OF FINLAND

Peloton Club

In Helsinki, the independent think-tank Demos Helsinki has developed a specific support for consumer cleantech start-ups acting to mitigate climate change and to reduce consumption of natural resources. A successful story of transversal work to bring the change into everyday life of the inhabitants!

Stakeholders involved	<p>Start-ups and companies from various industries in consumer cleantech field (built environment, mobility, food & sustainable consumption) are the main stakeholders and beneficiaries.</p> <p>Other stakeholders involved: NGOs, end-users and citizens; municipalities, cities and research institutions; ministries and public funding agencies.</p>
Timeframe	The first Peloton project was launched in 2009. Peloton Club as it is today is operating since autumn 2012.
Cost	Approx. 250 000 €/year – indicative only, can vary from location to location and depends on the local ecosystem actors and initial engagement level.
Quantitative and qualitative impact(s)	<p>Industry specific innovation camps & workshops have delivered significant impact. Successful examples:</p> <ul style="list-style-type: none"> • Rautakesko built an Energy expert service, developed a store concept and staff education programme in 2010. • Fazer Amica developed Climate Lunch experiment - 60 new vegetable-based lunch recipes, asset in B2B negotiations. • Lahden Ateria: 13% emission reduction & 100 000€ of savings in one year by going through lunch recipes and reducing biowaste. • ResQ (mobile app): Over 350 000 meals ResQ'd from over 1750 restaurants since January 2016, over 90 000 kgs of food-waste prevented, equal to CO₂ emissions from 8 000 000 km driven, jobs creation.
Contact	Kati Vuks, community manager of Peloton Club at Demos Helsinki, kati.vuks@demoshelsinki.fi
Website	http://pelotonclub.me/





Kati Vuks, Community Manager at Demos Helsinki (Finland)

The think-tank Demos Helsinki develops a specific approach to support startups, in particular those acting for mitigation of climate change: the Peloton Club. PASSAGE partners selected your eco-systemic approach as a good example of support to entrepreneurship and social innovation in the framework of low-carbon transition. Can you tell us more?

Peloton Club is a peer-incubator, accelerator and an ecosystem. We connect early-stage smart & clean startups with corporations and cities in order to enhance creation and development of new resource-smart business models, products and services. We run workshops, innovation camps and acceleration programs, as well as host community gatherings known as Peloton Club Nights. During the last 8 years, we have created a unique entrepreneurial community, one that is open to a wider set of people. One that attracts wide range skills necessary for transforming cities/food/transportation/housing, including lifestyle-entrepreneurs, enthusiasts, designers, researchers, urban activists, professionals, city officials, students etc.

Starting point is the fact that change of technology is not enough to succeed low-carbon transition and that change of behaviour is necessary as well. Is it difficult for enterprises to change behaviour? How can you make sure it meets the consumers' demand?

Peloton approach involves creating and scaling up behaviour change businesses. In terms of resources and energy, the most important decisions people make in their lives relate to mobility, housing and eating. This is where most of our money is spent and also where the majority of the emissions come from. We work with companies to change behaviours regarding those activities, involving other stakeholders in concept development, co-creation. Most of the companies we have worked with throughout the years have mostly managed to shift their attention to ways of benefiting from the behavioural change of the customers. In our acceleration programs, significant part of the process is the business experiments conducted. The startups or for example incumbent-startup pairs have the opportunity to test business models and new products/services within real life testbeds and real users, in order to improve their concepts and to make sure it meets the consumers' demand.

Can you explain how you manage to involve different stakeholders together and what are the benefits?

We use many different co-creational methods as the basis of our workshops and innovation camps. Peloton approach is about tackling the low-carbon future by co-creating ideas for new products and services (collaboration between different stakeholders) and adding value to old ones (e.g. internal workshops within the companies). For each case and program, we firstly map the relevant stakeholders or gatekeepers (either we help to find the right people within a company or/and map the key players in the market). Then we invite these different counterparts to a joint event (e.g. innovation camp) where we facilitate their discussion and co-creation process. Facilitation is important to be able to create a common ground for fruitful discussion between counterparts with very different mindsets (long-term thinking, strategies and goals versus fast-track, fail-fast innovative approach). Creating an open, "yes we can" feeling with trust between participants is key in the camps. We also organize Peloton Club Nights where these different stakeholders can meet in a relaxed networking environment. Participants are not just people who take part in the projects, but the whole Peloton ecosystem, from enthusiasts and community activists to CEO-s of big corporations and people working in the public authorities.

Helsinki region is a dynamic capital region; do you think a similar approach could be implemented in other European regions? What would you advice?

We believe that a similar approach can be implemented also in different regions. Building a community of like-minded entrepreneurship-driven individuals who care about the future of this planet and want to tackle the great challenges is definitely possible also outside capital areas. However, we are certain that due to different characteristics, the background and current situation of those regions (existing startup infrastructure, activity level of the entrepreneurship scene, what kind of approaches, events and initiatives are already carried out and who are the key players in the current ecosystems etc.) play an important role of how and to what extent the implementation of Peloton approach can be carried out. For example, we are currently planning a collaboration project in Nairobi, Kenya in 2018 and the first steps there will be mapping the local startups/entrepreneurship scene and detecting the needs of the entrepreneurs and community to plan relevant activities that engage and activate the local ecosystem and create new opportunities for entrepreneurs. We are now also part of Interreg SmartUp Accelerator three-year project which will help us to enhance the Peloton approach and create bridges with the ecosystems of Baltic Sea Region countries such as Sweden, Poland, Russia, Estonia, Latvia and Germany. This also means that we are able to test, adjust and disseminate the Peloton approach outside of Finland, in the Baltic Sea area.

ESTONIA – GULF OF FINLAND

Tallinn Smart City

In Tallinn, the development of new technologies is seen as the best way to tackle the low-carbon challenge, with innovative solutions to reduce the carbon footprint of most of activities. The city through the Tallinn Science Park Tehnopol has joined the Estonian Smart City Cluster. Estonian Smart City Cluster is designed to create an innovative environment in cities, which will boost the competitive ability of companies by bringing together businesses, citizens, public authorities, R&D institutes and structures that support innovation. The cluster will focus on the creation, development (including product development) and exporting of innovative solutions taking in different spheres of urban life. This is a joint project between the City of Tartu, ICT companies and infrastructure companies.

Stakeholders involved	Tartu City, Tallinn Science Park Tehnopol, Tartu Science Park, Tartu University Hospital, AHHA Science Center, Rakvere Smart House Competence Center, STACC, Tallinn University of Technology, Mobi Lab, Positium, Reach-U, Jiffi, Microsoft Estonia, Cityntel, Thinnect, GoSwift, PAKRI Science and Industrial Park, Autolevi, Flydog Solutions, Baltic Innovation Agency, Focus Research, Ridango, Hoiame Kokku Grupp, Net Group
Timeframe	The activities of the cluster are being co-financed from 2015 to 2018 by the European Regional Development Fund (ERDF) via the Enterprise Estonia cluster development programme. The project will last from 1 December 2015 to 30 November 2018
Cost	Total 1 200 000€, 50% of which comprises support from the ERDF.
Quantitative and qualitative impact(s)	Objectives of the project are to support the development of smart city solutions in order to improve life quality in the cities and to accelerate the export of enterprises. Expected impacts are more effective and easier to use smart city services (both public and private), thanks to an internationally valued innovation environment, where city authorities and citizens, scientists, enterprises etc. are co-creating smart solutions based on contemporary technologies.
Contact	Gerttu Pilsas, Project Manager, gerttu@smartcitylab.eu
Website	http://smartcitylab.eu/en





Gerttu Pilsas, Project Manager at Estonian Smart City Cluster (Estonia)

Gerttu Pilsas, you are working for Estonian Smart City Cluster, which was identified as a good practice for support to entrepreneurship and social innovation by PASSAGE project partners. Can you explain what Estonian Smart City Cluster is about?

Estonian Smart City Cluster is designed to support the development of smart city solutions, in order to improve quality of life in the cities, and also to accelerate the export of enterprises. We are mainly focusing on the opportunities ICT and new technologies could have in different actions and processes of the cities, and in developing energy saving and sustainable development solutions, as well as developing healthcare and social welfare in an efficient and cost effective way.

Estonia is one of the European countries where the use of new technology is the most developed. How can it help to support low-carbon development?

One example of how new technology can aid low-carbon development is by smoothing bureaucratic processes and making governance more efficient. Together with the city of Tartu, we are constantly looking for new opportunities to make the city's public services meet the needs and expectations of the citizens. Opportunities may include different mobile applications, migration and mobility studies based on mobile positioning data that could be used in urban planning, modern hands-free public transportation ticketing systems and mobile tools for city officials or any other smart solutions. The city of Tartu is very open towards innovation and is willing to test and develop smart solutions in a real city environment.

We have activities like City Planning Procedure Register, Web solution for Landscaping and Maintenance Works, Urban Planning Application or Public Events Management Portal AKIS, all developed for the City of Tallinn. Real-life innovations for low-carbon development could include several of our smart infrastructure initiatives like renovating the old Soviet apartment buildings into energy-efficient and modern houses, as well as a district cooling system that uses residual heat in Tartu.

Tallinn City's smart street system solution projects in 2017-2020 will include a new Traffic Light System (with motion sensors), Dashboard (weather station), Bike-cycle and Pedestrian Counting System with cameras, the street with variable direction traffic and continuous road signs etc. You can read about our initiatives on Estonian Smart City Cluster webpage <http://smartcitylab.eu>.

Tallinn is part of the "Smart City Cluster": who is part of this cluster and what are its assets?

Partners in Estonian Smart City Cluster include Tartu City, Tallinn Science Park Tehnopol, Tartu Science Park, Tartu University Hospital, AHHAA Science Center, Rakvere Smart House Competence Center, STACC, Tallinn University of Technology, Mobi Lab, Positium, Reach-U, Jiffi, Microsoft Estonia, Cityntel, Thinnect, GoSwift, PAKRI Science and Industrial Park, Autolevi, Flydog Solutions, Baltic Innovation Agency, Focus Research, Ridango, Hoiame Kokku Grupp, Net Group. The cluster is open to parties interested in the Smart City solutions and we hope to provide a platform where new good ideas can grow and be developed into useful solutions.

According to you, what are the main lessons to be learnt from your experience in cities like Tallinn and, more nationally, in Estonia? What can still be improved?

I believe one of the key factors for Estonia's success is openness to innovation and willingness to try, test and develop new solutions together with the citizens. We have proved that using living lab methodology for different co-creation projects is a good way of engaging citizens from a very early stage of development. This has also helped us to develop solutions that really meet the needs of the citizens as the end users. I'm sure we could learn from other nations' and cities' experiences in terms of implementing large scale pilots and communicating the best practice and lessons learned.



➤ 2 - Joint proposals for cross-border policy improvement

Acknowledging the specific role of cross-border cooperation programmes INTERREG VA to support integrated approaches in maritime border regions, PASSAGE partners make the following statements:

- Cross-border cooperation programmes covering maritime border regions have been designed just like the cross-border cooperation programmes covering land regions, despite different issues.
- Cross-border cooperation programmes covering their maritime border regions are globally relevant and useful tools, but the consideration of the low-carbon transition challenge could be improved, to motivate further cooperation on the maritime border.

Thus, in the framework of the existing programmes, PASSAGE partners propose the possibility to:

- **Provide tools for calculating the carbon impact of the projects asking for support from these programmes.** A joint calculation tool for all programmes, inspired from the methodology used by private companies to assess their carbon impact, could be designed and used by all programmes. Such a tool would help project applicants to define the carbon impact of their project and its contribution to sustainable development; it may also be a tool to encourage projects to reduce their emissions.
- **Make the carbon impact of projects the ultimate criterion** for programme governance bodies to decide between two projects of equal quality.
- **Include qualitative indicators in the evaluation** of these programmes and the projects they support. Evaluation is too often based only on quantitative indicators (number of enterprises supported, number of tourists visiting the area...), which do not enable the change in behaviours to be measured – a key issue when it comes to social innovation and low-carbon transition. Low-carbon transition needs to be considered as a universal territorial policy to be developed both on quantitative (economic and industrial) and qualitative (social) levels, not just as an award criterion.

Beyond the framework of the current INTERREG VA programmes, PASSAGE partners propose the following recommendations:

When it comes to maritime borders specifically:

- **Reaffirm the key role of dedicated EU funding for cross-border cooperation in maritime border regions.** Support for cooperation in maritime border regions should be an integrated part of a strong cohesion policy in Europe, to reinforce the economic, social and environmental integration of maritime border regions. The reduction or disappearance of such EU funded support would be highly damageable for the quality and efficiency of cooperation in maritime border regions, if not a risk for its disappearance – especially on EU current and future external maritime borders (Mediterranean Sea, Adriatic and Ionian region, English Channel and North Sea).
- **Develop an approach to cooperation specific to maritime border regions.** It is clear that land and maritime regions do not share all the same issues and should be targeted through different support schemes. Ultimately, the European Union should develop a “European maritime cooperation” model, in parallel with the “European territorial cooperation” model developed over the last 30 years, with clear links between the two. The geography of the support schemes should be based on the relevance of cross-border maritime basins and not necessarily on territorial divisions.
- **Enable cooperation with third countries.** Considering that all countries sharing the same sea basin are jointly responsible for many issues (especially environmental issues, including air pollution), it is clear that all these countries should be able to get involved in cooperation to solve these issues. This includes countries which are currently not part of the European Union (such as Russia in the Gulf of Finland and more globally in the Baltic sea basin), countries that are official candidates to enter the European Union (such as Albania on the Strait of Otranto and more globally in the Adriatic and Ionian sea basin) or countries that may leave the European Union (such as the United-Kingdom on Dover Strait and more globally on the Channel-North Sea basins). Any dedicated EU funding for cooperation should include the possibility for stakeholders from these countries to take part.



- ▶ **Reaffirm the importance of the cross-border scale** as a key level of work within the framework of larger sea-basin strategies. Maritime border regions are strongly interconnected regions with their own characteristics, and sea-basin cooperation is not sufficient to resolve the particular issues of each sub-basin. This cross-border scale should benefit from specific support schemes from the EU, but also from specific governance structures by local public authorities – two complementary approaches.
- ▶ **Do not limit cooperation in maritime border regions to maritime-related topics only.** Blue growth is a key opportunity for the development of maritime border regions and specific issues are linked with maritime transport and industries, but many other topics are key issues for cooperation in these regions – especially, when it comes to low-carbon transition, which is a universal priority.

In general, at European level:

- ▶ **Develop a territorial approach to low-carbon transition**, not a technical approach (technological innovation, new economic products etc.). The low-carbon transition approach should be included in all public policies and embedded throughout the economy and society, in order to reach the territorial decarbonisation objectives. This could include supporting territorial initiatives that could generate additional benefits, such as territorial carbon footprint labels. The high territorial attractiveness potential of such approach needs to be underlined. One possible tool would be to enable project applicants to link funding priorities within the cooperation programmes; this would make it easier to understand the cross-sector dimension of the low-carbon transition, for example, economy, environment, health etc.
- ▶ **Support civil society to become more involved in cooperation programmes.** This is key for a bottom-up integration of maritime border regions. Future cross-border cooperation support schemes should allow public-private-people partnerships and small-scale projects involving inhabitants (people-to-people projects). This will enable the societal changes in behaviour that are necessary for the low-carbon transition. Border regions are important areas for promoting European citizenship; maritime border regions must participate in this ethos. Future support schemes for cooperation should come back to the initial definition of territorial cohesion: a mutual understanding of people in their diversity and a mitigation of spatial and social disparities. As such, the involvement of the civil-society should be fully taken into account in the design and evaluation of any future support scheme.
- ▶ **Develop the transfer of knowledge between regions facing similar issues.** As demonstrated by the PASSAGE project and the issue of low-carbon transition, it is important to share successful experiences between regions across Europe – this will improve efficiency and reduce the time it takes to achieve the European decarbonisation objectives. Such exchanges of experiences between maritime border regions, and more generally between other regions sharing similar issues, should be made possible by future support schemes.
- ▶ **Reinforce European regulations to support the reduction of emissions from navigation.** As demonstrated in PASSAGE project carbon study, emissions from navigation are responsible for a large part of the maritime border regions' carbon footprint, while local public authorities have no regulatory power over these emissions. This issue needs to be raised as a joint issue for all maritime regions in Europe and especially for maritime border regions and straits' areas, which concentrate many international flows. The access to free and high-quality data on emissions from maritime transport is a key element to support policy change.
- ▶ **Reaffirm the subsidiarity principle.** Local, intermediate and regional authorities are key stakeholders, well aware of the specific issues faced by their territory. As such, trust between the EU and local, intermediate and regional authorities should be reinforced. Local, intermediate and regional authorities should be involved in the design of European support policies and cohesion policy. The European Union should reaffirm their key role in the governance of territorial EU funding schemes.





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